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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,135	04/05/2006	Juro Ozeki	03327-2330	2415
22852 7590 07/13/2007 FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413				
			EXAMINER NILAND, PATRICK DENNIS	
			ART UNIT 1714	PAPER NUMBER
			MAIL DATE 07/13/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/524,135

Applicant(s)

OZEKI ET AL.

Examiner

Patrick D. Niland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 4/19/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

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1. The amendment of 4/19/07 has been entered. Claims 1, 3, and 5-6 are pending.
2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat. No. 6875812 Akiyama et al. in view of US Pat. No. 4433114 Coran et al. and US Pat. No. 5115035 Shiraki et al..

The date of this reference is such that it is prior art under 35 USC 102(e) if the priority document does not disclose the instantly claimed invention. The priority document is in Japanese. A certified translation is required to determine if the instantly claimed invention is disclosed therein so as to predate the above cited reference.

Akiyama discloses polyphenylene ether, styrene butadiene copolymers treated with the instantly claimed imidazolidinones, and filler treated with silane compound at the abstract; column 3, lines 55-67, which appears to meet the requirement of the instant claim 4 based on the disclosure there and the definition of "elastomer" as related to the butadiene polymers of the patentee which are elastomeric as understood by the ordinary skilled artisan; column 4, lines 1-67, particularly 44-67 which encompasses the amounts of the instantly claimed components a and b; column 5, lines 1-67; column 6, lines 1-12 and 60-67; column 7, lines 1-67; column 9, lines 12-67, particularly 41-67; column 10, lines 1-67, particularly 1-5; column 14, lines 15-21; column 15, lines 17-52, particularly 37-52, which falls within the scope of the instantly claimed component c and its amounts; column 18, lines 2-7; column 21, lines 55-61; column 22, lines 46-

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67; column 23, lines 1-67; and table 8 of columns 33-36, which uses the treated fillers of the instant claims in the instantly claimed amounts.

It would have been at least obvious to one of ordinary skill in the art at the time of the instant invention to use the above discussed combinations of ingredients and amounts thereof because they are encompassed by the patentee, exemplified by the patentee, and would have been expected to give the properties disclosed by the patentee.

It would have been at least obvious to one of ordinary skill in the art at the time of the instant invention to use the compound of the instant claim 5 in the broad amount range claimed because the general class of compounds are disclosed at column 15, lines 53-57-58, which encompasses the instant class of materials in that there are only two choices of this type of compound, e.g. aromatic or aliphatic and the triaryl phosphates are well known flame retardants which are commercially available for the purpose of giving flame retardance clearly desired by the patentee at column 15, line 55 and these flame retardants are typically used within the lower amounts of the instant claim 5 as is well known to the ordinary skilled artisan.

It would have been at least obvious to one of ordinary skill in the art at the time of the instant invention to use the clay filler of the instant claims because they are broadly encompassed by Akiyama et al., column 15, lines 17-25 and 38-40 by both the "inorganic salts", because clays are such salts, e.g. salts of aluminum silicates, and the broad recitation of "inorganic filler"; such fillers are shown by Coran to be known for improved reinforcing properties to rubber compositions (column 17, lines 50-58), and this improved reinforcement would have been expected in the composition of Akiyama and the clays exemplified by Coran have the instantly claimed particle size of claim 6 (column 17, lines 55-62 of Coran); and Shiraki et al. shows clays

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to be useful as fillers in butadiene styrene copolymers which can have terminal imidazolidinone groups mixed with polyphenylene ethers at the abstract; column 3, lines 47-68; column 5, lines 1-68, particularly 44-68; column 6, lines 1-68, particularly 24-25 and 48; column 7, lines 1-68; column 8, lines 1-68, particularly 22-35; column 9, lines 1-68; column 10, lines 1-68, particularly 8-12 which falls within the scope of the instantly claimed imidazolidinone modification; column 13, lines 22-40, particularly 27, which encompasses polyphenylene ethers; and column 25, lines 43-46 which shows clay to be compatible and desired in the instantly claimed compositions.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 6.

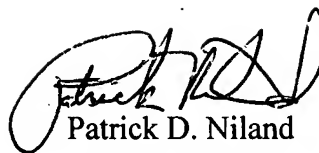
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Patrick D. Niland", is written over the printed name.

Patrick D. Niland  
Primary Examiner  
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